

EXHIBIT

B



Blast 2 Sequences results

PubMed

Entrez

BLAST

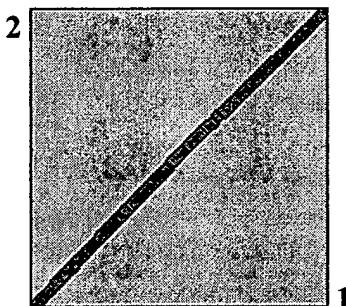
OMIM

Taxonomy

Structure

BLAST 2 SEQUENCES RESULTS VERSION BLASTP 2.2.5 [Nov-16-2002]

Matrix **BLOSUM62** gap open: **11** gap extension: **1**
 x_dropoff: **50** expect: **10.000** wordsize: **3** Filter Align

Sequence 1 lcl|seq_1 Length 862 (1 .. 862)
Sequence 2 lcl|seq_2 Length 859 (1 .. 859)


NOTE: The statistics (bitscore and expect value) is calculated based on the size of nr database

Score = 1202 bits (3110), Expect = 0.0
 Identities = 637/869 (73%), Positives = 704/869 (80%), Gaps = 17/869 (1%)

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Query: 1 MERAESSSTEPAKAIKPIDRKSVHQICSGQVVLSSLSTAVKELVENSLDAGATNIDLKLKD 60
       ME+ E STE AKAIPID KSVHQICSGQV+LSLSTAVKEL+ENS+DAGAT IDL+LKD
Sbjct: 1 MEQTEGVSTECAKAIKPIDGKSVHQICSGQVILSSLSTAVKELIENSVDAGATTIDLRLKD 60

Query: 61 YGVDLIEVSDNGCGVEEENFEGLTLKHHTSKIQEFADELTQVETFGFRGEALSSLCALSDV 120
       YGVDLIEVSDNGCGVEEENFEGL LKHHTSKIQEFADELTQVETFGFRGEALSSLCALSDV
Sbjct: 61 YGVDLIEVSDNGCGVEEENFEGLALKHHTSKIQEFADELTQVETFGFRGEALSSLCALSDV 120

Query: 121 TISTCHASAKVGTRLFDHNGKIIQKTPYPRPRGTTVSVQQLFSTLPVRHKEFQRNIKKE 180
       TISTCH SA VGTRL+FDHNGKI QKTPYPRP+GTTVSVQ LF TLPVR+KEFQRNIKKE
Sbjct: 121 TISTCHGSASVGTRLVFDHNGKITQKTPYPRPKGTTVSVQHLFYTLPVRYKEFQRNIKKE 180

Query: 181 YAKMVQVLHAYCIISAGIRVSCTNQLGQGKRQPVVCTGGSPSIKENIGSVFGQKQLQSLI 240
       Y+KMVQVL AYCIISAG+RVSCTNQLGQGKR VVCT G+ +KENIGSVFGQKQLQSLI
Sbjct: 181 YSKMVQVLQAYCIISAGIVRVSCTNQLGQGKRHAVVCTS GTSGMKENIGSVFGQKQLQSLI 240

Query: 241 PFVQLPPSDSVCEEYGLSCSDALHNLF--YISGFISQCTHGVGRSSTDQFFFINRRPCD 298
       PFVQLPPSD+VCEEYGLS S H F + + F S T G T F R P
Sbjct: 241 PFVQLPPSDAVCEEYGLSTSGR-HKTFSTFRASFHSARTAPGGVQQTG-SFSSSIRGPVT 298

Query: 299 PAKVCRLVNEVYHMYNRHQYPFVVLNISVDSECVDINVTPDKRQILLQEEKLLLAVLKTS 358
       + L YHMYNRHQYPFVVLN+SV DSECVDINVTPDKRQILLQEEKLLLAVLKTS
Sbjct: 299 QRSLSLSMRFYHMYNRHQYPFVVLNVSDSECVDINVTPDKRQILLQEEKLLLAVLKTS 358

Query: 359 LIGMFDSDVNLNVSQPLLDVEGNLIKMAADLEKPMVEKQDQSPSLR-TGEEKKDVSI 417
       LIGMFDS D NKLN V+QQPLLDVEGNL+K+H A+LEKP+ KQD SPSL+ T +EK+ SI
  
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Sbjct: 359 LIGMFDSANKLNVNQQPLLDVEGNLVKLHTAELEKPVPGKQDNSPSLKSTADEKRVASI 418

Query: 418 SRLREAFSLRHTTENKPHSPKTPEPRRSPLGQKRGMLSSSTSGAISDKGVLRPQKEAVSS 477
SRLREAFSL T E K P+T E RS +KRG+LSS S IS +G+ Q + VS

Sbjct: 419 SRLREAFSLHPTKEIKSRGPETAELTRSFPEKRGVLSSYPSDVISYRGLRGSQDKLVSP 478

Query: 478 SHGPSDPTDRAEVEKDGSHGSTSVDSEG-FSIPDTGSHCSSEYAASSPGDRGSQEHVDSQ 536
+ P D DR ++EKDSG STS SE FS P+ S SS+Y SS DR SQE ++

Sbjct: 479 TDSPGDCMDREKIEKDGSGLSSTSAGSEEESTPEVASSFSSDYNVSSLEDRPSQETINCG 538

Query: 537 E---KAPETDDSFSDVDCHSNQEDTGCKFRVLPQPTNLATPNTKRFKKEILSSSDICQK 593
+ + P T S ED G + + LP L+ N KRFK EE S+ +I Q+

Sbjct: 539 DLDCRPPGTGQSLKP-----EDHGYQCKALPL-ARLSPTNAKRFKTEERPSNVNISQR 590

Query: 594 LVNTQDMASASQVDVAVKINKVVPLDFSMSSLAKRIKQLHHEAQSEQEQNRYRKFRASIC 653
L Q SA++VDVA+K+NK++V L+FS+SSLAKR+KQL H Q++ E +YRKFRASIC

Sbjct: 591 LPGPQSTSAAEVDAIKMKNRIVLLEFSLSSLAKRMKQLQHLKAQNKHELSSYRKFRASIC 650

Query: 654 PGENQAAEDELRKEISKTMFAEMEIIGQFNLFITKLNEIFVDQHATDEKYNFEMLQ 713
PGENQAAEDELRKEISK+MFAEMEI+GQFNLFITKL ED+F+VDQHA DEKYNFEMLQ

Sbjct: 651 PGENQAAEDELRKEISKSMFAEMEIILGQFNLFITVTKLKEDLFLVDQHAADEKYNFEMLQ 710

Query: 714 QHTVLQGQRЛИAPQTLNLTAVNEAVLIENLEIFRKNGFDFVIDENAPVTERAKLISLPTS 773
QHTVLQ QRЛИ PQTLNLТАVNEAVLIENLEIFRKNGFDFVIDE+APVTERAKLISLPTS

Sbjct: 711 QHTVLQAQRЛИTPQTLNLTAVNEAVLIENLEIFRKNGFDFVIDE+APVTERAKLISLPTS 770

Query: 774 KNWTFGPQDVDELIFMLS DSGVMCRPSRVKQMFASRACRKSVMIGTALNTSEMKKLITH 833
KNWTFGPQD+DELIFMLS DSGVMCRPSRV+QMFASRACRKSVMIGTALN SEMKKLITH

Sbjct: 771 KNWTFGPQDIDELIFMLS DSGVMCRPSVRQMFASRACRKSVMIGTALNASEMKKLITH 830

Query: 834 MGEMDHPWNCPHGRPTMRHIANLGVISQN 862
MGEMDHPWNCPHGRPTMRH+ANL VISQN

Sbjct: 831 MGEMDHPWNCPHGRPTMRHVANLDVISQN 859

CPU time: 0.17 user secs. 0.04 sys. secs 0.21 total secs.

Lambda K H
0.315 0.131 0.371

Gapped

Lambda K H
0.267 0.0410 0.140

Matrix: BLOSUM62

Gap Penalties: Existence: 11, Extension: 1

Number of Hits to DB: 6158

Number of Sequences: 0

Number of extensions: 502

Number of successful extensions: 5

Number of sequences better than 10.0: 1

Number of HSP's better than 10.0 without gapping: 1

Number of HSP's successfully gapped in prelim test: 0

Number of HSP's that attempted gapping in prelim test: 0

Number of HSP's gapped (non-prelim): 1

length of query: 859

length of database: 461,760,005

effective HSP length: 136

effective length of query: 723

effective length of database: 461,759,869

effective search space: 333852385287
effective search space used: 333852385287
T: 9
A: 40
X1: 16 (7.3 bits)
X2: 129 (49.7 bits)
X3: 129 (49.7 bits)
S1: 41 (21.6 bits)
S2: 79 (35.0 bits)